A5. Report Forms

M11 EGR

LUBRICANT PERFORMANCE TEST

VERSION *M11EGR VERSION 20010328*

METHOD *CCCCCCCC*

CONDUCTED FOR:

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

C	V = VALID; THE REFERENCE OIL/NON-REFERENCE OIL WAS EVALUATED IN ACCORDANCE WITH THE TEST PROCEDURE.
	I = INVALID; THE REFERENCE OIL/NON-REFERENCE OIL WAS NOT EVALUATED
	N = NOT INTERPRETABLE; THE NON-REFERENCE OIL RESULTS CANNOT BE INTERPRETED AND SHALL NOT BE USED FOR MULTIPLE TEST ACCEPTANCE.

CC	NR = Non-Reference Oil Test
	RO = Reference Oil Test

STAND: *CCCCC*	ENGINE NO.:*CCCCCCCC*	ENGINE RUN NO.: *CCCC*
END OF TEST DATE: *YYYYMMDD*	END OF TEST TIME:*HH:MM*	
OIL CODE: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		
FORMULATION/STAND CODE: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
ALTCODE1: *CCCCCCCCCC*	ALTCODE2: *CCCCCCCCCC*	ALTCODE3:

In my opinion been conducted in a valid manner in accordance with the Test and the appropriate amendments through the information letter system. The remarks included in this report describe

SUBMITTED BY: _____

Testing Laboratory

_____

Signature

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

Typed Name

CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

Typed Name

M11 EGR LUBRICANT PERFORMANCE TEST
Test Results Summary
Form 4

Laborator *CC*	EOT Date: *YYYYMMDD*	EOT Time: *HH:MM*
Stand: *CCCCC*	Engine *CCCCCCCC*	Engine Run *CCCC*
Formulation/Stand *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
Oil *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*	Engine Kit *CCCCCCCCCCCC*	

DATE TEST STARTED	*YYYYMMDD*
START TIME	*HH:MM*
TEST LENGTH	*S12*
TMC OIL CODE [A]	*CCCCCC*
LABORATORY OIL CODE	*CCCCCCCCCCCC*
SAE VISCOSITY	*CCCCCCC*
TGA SOOT % AT 50 h (2.8 minimum)	*S123.1*
TGA SOOT % AT 250 h (8.0 - 9.5)	*S123.1*
TOTAL OIL CONSUMPTION, kg	*S12.12*

	Adjusted Average Crosshead Mass Loss	Filter Plugging Delta P (kPa)	Average Sludge Rating (merits)
Original Result	*S12.1234*	*S123*	*S1.1*
Transformed Result [B]	*S12.1234*	*S1.1234*	*S1.1234*
Correction Factor [B]	*S12.1234*	*S1.1234*	*S1.1234*
Corrected Transformed Result [B]	*S12.1234*	*S1.1234*	*S1.1234*
Severity Adjustment [B]	*S12.1234*	*S1.1234*	*S1.1234*
Final Transformed Result [B]	*S12.1234*	*S1.1234*	*S1.1234*
Final Result	*S123.1*	*S123*	*S1.1*

LAST STAND REFERENCE RESULTS

TEST NUMBER: *CCCCC CCCCCCCC CCCC*	
OILCODE	*CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*
TEST LENGTH	*S12*
TMC OIL CODE	*CCCCCC*
EOT DATE	*YYYYMMDD*
EOT TIME	*HH:MM*
STAND CALIBRATION EXPIRATION DATE	*YYYYMMDD*
TGA SOOT % AT 50 h (2.8 minimum)	*S123.1*
TGA SOOT % AT 250 h (8.5 - 9.5)	*S123.1*
TOTAL OIL CONSUMPTION, kg	*S12.12*

	Adjusted Average Crosshead Mass Loss	Filter Plugging Delta P (kPa)	Average Sludge Rating (merits)
Original Result	*S12.1234*	*S123*	*S1.1*
Transformed Result [B]	*S12.1234*	*S1.1234*	*S1.1234*
Correction Factor [B]	*S12.1234*	*S1.1234*	*S1.1234*
Corrected Transformed Result [B]	*S12.1234*	*S1.1234*	*S1.1234*
Final Transformed Result [B]	*S12.1234*	*S1.1234*	*S1.1234*
Final Result	*S123.1*	*S123*	*S1.1*

[A] Reference Tests Only

[B] Transformed Units

M11 EGR LUBRICANT PERFORMANCE TEST
FORM 5
OPERATIONAL SUMMARY

Laboratory *CC*	EOT Date *YYYYMMDD*	EOT Time *HH:MM*
Test Number Stand: *CCCCC*	Engine: *CCCCCCCC*	Engine Run *CCCC*
Formulation/Stand *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
Oil Code: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

Controlled Parameters

Parameter	Units	QI Threshold	EOT QI [A]	Target		Average		Samples [B]	BQD [C]	Over/Under Range [D]
Speed	r/min	0.000	*S12.123*	1800	1600	*S123456*	*S123456*	*S1234*	*S1234*	*S1234*
Fuel Flow	kg/h	0.000	*S12.123*	58.0	64.4	*S123.1*	*S123.1*	*S1234*	*S1234*	*S1234*
Coolant Out	°C	0.000	*S12.123*	65.5		*S123.1*		*S1234*	*S1234*	*S1234*
Fuel In	°C	0.000	*S12.123*	40		*S12.1*		*S1234*	*S1234*	*S1234*
Oil Gallery	°C	0.000	*S12.123*	115		*S123.1*		*S1234*	*S1234*	*S1234*
Intake Manifold	°C	0.000	*S12.123*	80.0	65.5	*S12.1*	*S12.1*	*S1234*	*S1234*	*S1234*
Exhaust	kPa	0.000	*S12.123*	107		*S123.1*		*S1234*	*S1234*	*S1234*

Non-controlled Parameters

Parameter	Units	Typical Values [E]		Average	
Torque	N-m	TBD	TBD	*S1234.1*	*S1234.1*
Power	kW	TBD	TBD	*S123.1*	*S123.1*
EGR Rate [F]	%	Record	8.5 - 9.8	*S123.1*	*S123.1*
Blowby	L/min	TBD		*S12.1*	
Coolant In	°C	TBD		*S123.1*	
Intake Air	°C	TBD		*S12.1*	
Pre-Turbine (F)	°C	TBD		*S123.1*	
Pre-Turbine (R)	°C	TBD		*S123.1*	
Tailpipe	°C	TBD		*S123.1*	
Fuel	kPa	TBD		*S1234.1*	
Oil Gallery	kPa	TBD		*S123.1*	
Coolant	kPa	99 - 107		*S123.1*	
Intake Manifold	kPa	TBD		*S123.1*	
Crankcase	kPa	TBD		*S1.1*	
Intake Air	kPa	TBD		*S12.12*	

A QI values above the threshold are acceptable by the M11 Surveillance Panel. QI values below the threshold may not be considered acceptable based on

B Total number of data points taken

C Number of Bad Quality Data points not used in the calculation of the statistical measures

D Number of points clipped by over/under range limits

E Typical values determined from reference oil test database

F Stage B EGR Rate shall be within specified range for test to be operationally valid.

M11 EGR LUBRICANT PERFORMANCE TEST
FORM 6
CROSSHEAD MASS LOSS SUMMARY

Laborator *CC*	EOT Date *YYYYMMDD*	EOT Time *HH:MM*
Test Number		
STAND: *CCCCC*	ENGINE: *CCCCCCCC*	ENGINE RUN NO.: *CCCC*
FORMULATION/STAND CODE: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
OIL CODE: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

LOCATION	SERIAL NO.	PRETEST MASS (g)	EOT MASS (g)	MASS LOSS (mg)
1E	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
1I	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
2I	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
2E	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
3E	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
3I	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
4I	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
4E	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
5E	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
5I	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
6I	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*
6E	*CCCCC*	*S123.1234*	*S123.1234*	*S12.1*

INTAKE/EXHAUST SUMMARY	INTAKE		EXHAUST	
	As Measured	Outlier	As Measured	Outlier
Average Crosshead Mass Loss	*S12.12*	*S12.12*	*S12.12*	*S12.12*
Minimum Crosshead Mass Loss	*S12.1*	*S12.1*	*S12.1*	*S12.1*
Maximum Crosshead Mass Loss	*S12.1*	*S12.1*	*S12.1*	*S12.1*
Standard Deviation (mg)	*S12.12*	*S12.12*	*S12.12*	*S12.12*
Outlier Crossheads Locations [A]	*CCCCCCCC*		*CCCCCCCC*	

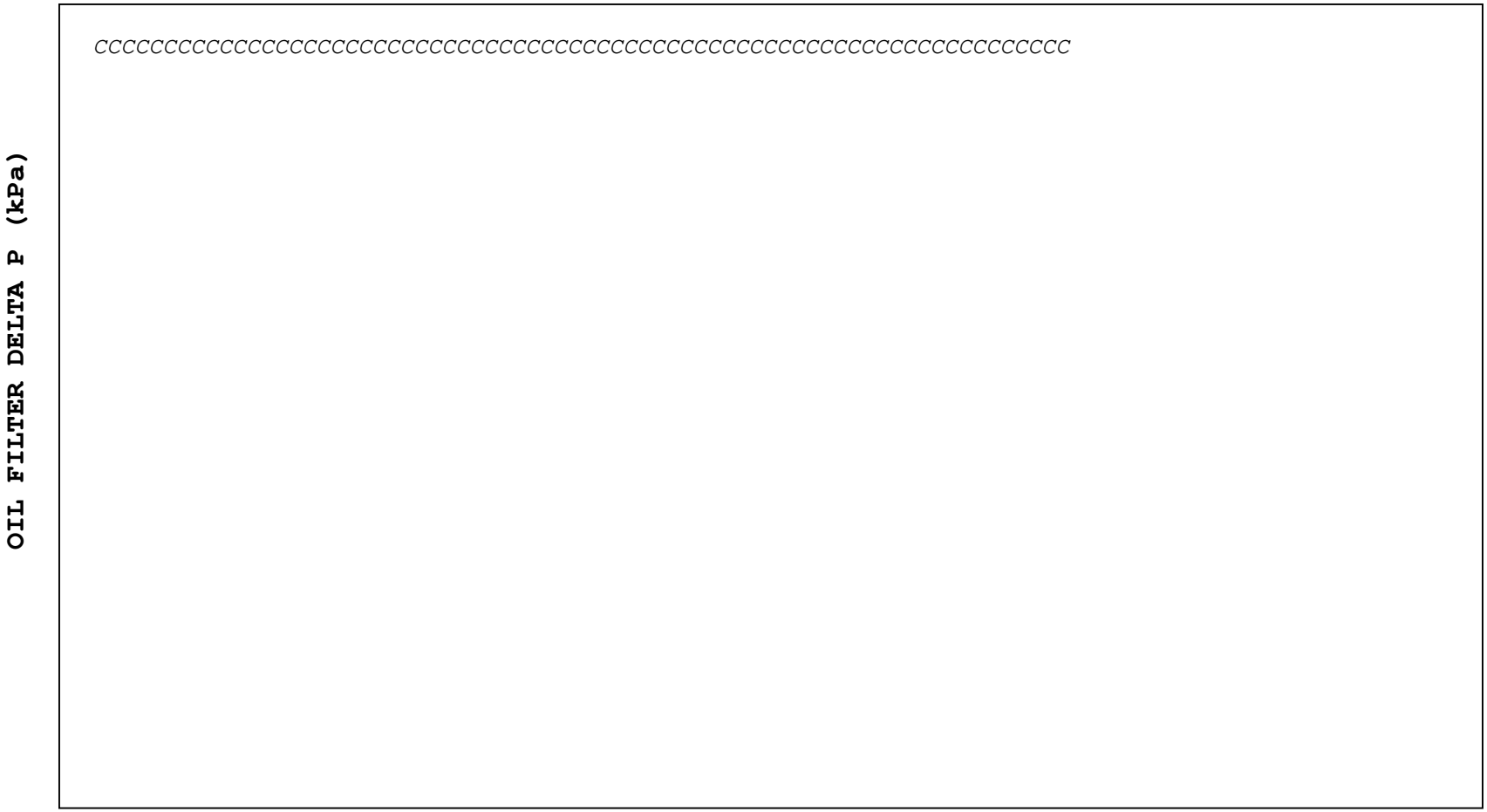
[A] Location Designation. Example: 3E

Overall Summary	As Measured	Outlier Screened	Adjusted to X.X%
Average Crosshead Mass Loss	*S12.12*	*S12.12*	*S12.1234*
Minimum Crosshead Mass Loss	*S12.1*	*S12.1*	
Maximum Crosshead Mass Loss	*S12.1*	*S12.1*	
Standard Deviation (mg)	*S12.12*	*S12.12*	

M11 EGR LUBRICANT PERFORMANCE TEST
FORM 7
OIL FILTER DELTA PRESSURE PLOT

Laboratory *CC*	EOT Date *YYYYMMDD*	EOT Time *HH:MM*
Test Number		
STAND: *CCCCC*	ENGINE: *CCCCCCCC*	ENGINE RUN NO.: *CCCC*
FORMULATION/STAND CODE: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
OIL CODE: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

OIL FILTER DELTA PRESSURE vs TEST HOURS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M11 EGR LUBRICANT PERFORMANCE TEST
FORM 8
SLUDGE RATING SUMMARY

Laboratory *CC*	EOT Date: *YYYYMMDD*	EOT Time: *HH:MM*
TEST NUMBER		
STAND: *CCCCC*	ENGINE: *CCCCCCCC*	ENGINE RUN NO.: *CCCC*
FORMULATION/STAND CODE: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
OIL CODE: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

SLUDGE RATING SUMMARY

Sludge Depth	Valve Cover % of Area	Valve Cover Volume Factor	Oil Pan % of Area	Oil Pan Volume Factor
1/4A	*S12*	*S1.12*	*S12*	*S1.12*
1/2A	*S12*	*S1.12*	*S12*	*S1.12*
3/4A	*S12*	*S1.12*	*S12*	*S1.12*
A	*S12*	*S1.12*	*S12*	*S1.12*
AB	*S12*	*S1.12*	*S12*	*S1.12*
B	*S12*	*S1.12*	*S12*	*S1.12*
BC	*S12*	*S1.12*	*S12*	*S1.12*
C	*S12*	*S1.12*	*S12*	*S1.12*
D	*S12*	*S1.12*	*S12*	*S1.12*
E	*S12*	*S1.12*	*S12*	*S1.12*
F	*S12*	*S1.12*	*S12*	*S1.12*
G	*S12*	*S1.12*	*S12*	*S1.12*
H	*S12*	*S1.12*	*S12*	*S1.12*
I	*S12*	*S1.12*	*S12*	*S1.12*
J	*S12*	*S1.12*	*S12*	*S1.12*
	Total Volume *S12.12*		Total Volume *S12.12*	
	MERIT RATING: *S12.12*		MERIT RATING: *S12.12*	
		Average Sludge Rating: *S1.1*		

M11 EGR LUBRICANT PERFORMANCE TEST
FORM 9
ROD BEARING MASS LOSS

Laboratory *CC*	EOT Date *YYYYMMDD*	EOT Time *HH:MM*
Test Number		
STAND: *CCCCC*	ENGINE: *CCCCCCCC*	ENGINE RUN NO.: *CCCC*
FORMULATION/STAND CODE: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
OIL CODE: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

CYLINDER NUMBER	BEARING LOCATION	PRE-TEST MASS (g)	POST-TEST MASS (g)	MASS LOSS (mg)
1	UPPER	*S123.1234*	*S123.1234*	*S123.1*
	LOWER	*S123.1234*	*S123.1234*	*S123.1*
2	UPPER	*S123.1234*	*S123.1234*	*S123.1*
	LOWER	*S123.1234*	*S123.1234*	*S123.1*
3	UPPER	*S123.1234*	*S123.1234*	*S123.1*
	LOWER	*S123.1234*	*S123.1234*	*S123.1*
4	UPPER	*S123.1234*	*S123.1234*	*S123.1*
	LOWER	*S123.1234*	*S123.1234*	*S123.1*
5	UPPER	*S123.1234*	*S123.1234*	*S123.1*
	LOWER	*S123.1234*	*S123.1234*	*S123.1*
6	UPPER	*S123.1234*	*S123.1234*	*S123.1*
	LOWER	*S123.1234*	*S123.1234*	*S123.1*

	BEARING MASS LOSS
AVERAGE (mg)	*S123.1*
MINIMUM (mg)	*S123.1*
MAXIMUM (mg)	*S123.1*
STANDARD DEVIATION (mg)	*S1.12*

M11 EGR LUBRICANT PERFORMANCE TEST
FORM 10
PISTON RATING SUMMARY

Laborator *CC*	EOT Date *YYYYMMDD*	EOT Time *HH:MM*
TEST NUMBER		
STAND: *CCCCC*	ENGINE: *CCCCCCCC*	ENGINE RUN NO.: *CCCC*
FORMULATION/STAND CODE: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
OILCODE: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

UNWEIGHTED DEMERITS										
PISTON NUMBER	Lands				Grooves			Under Crown	Oil Cooling Gallery	Total Demerits
	1	2	3	4	1	2	3			
1	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S1.123*	*S123.12*	*S12.123*
2	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S1.123*	*S123.12*	*S12.123*
3	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S1.123*	*S123.12*	*S12.123*
4	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S1.123*	*S123.12*	*S12.123*
5	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S1.123*	*S123.12*	*S12.123*
6	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S1.123*	*S123.12*	*S12.123*
Average Demerits	*S1.123*	*S1.123*	*S1.123*	*S1.123*	*S1.123*	*S1.123*	*S1.123*	*S1.123*	*S1.123*	
					Average Total Unweighted Demerits					*S12.123*

PARAMETER	PISTON NUMBER						AVERAGE
	1	2	3	4	5	6	
TGC	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*
TLC	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*	*S12.12*

M11 EGR LUBRICANT PERFORMANCE TEST
FORM 11
PISTON 1 DEPOSIT RATINGS

Laboratory *CC*	EOT Date *YYYYMMDD*	EOT Time *HH:MM*
TEST NUMBER		
STAND: *CCCCC*	ENGINE: *CCCCCCCC*	ENGINE RUN NO.: *CCCC*
FORMULATION/STAND CODE: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
OILCODE: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

	GROOVES				LANDS				DEP FACTOR	GROOVES		LANDS				OIL COOLING GALLERY (2)		UNDER CROWN (1)	
DEP.	NO. 1		NO. 2		NO. 1		NO. 2			NO. 3		NO. 3		NO. 4					
FACTOR	A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.		A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.
CARBON																			
HC-1.0	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*				
MC-0.5	*S12*	*S12.12*								*S12*	*S12.12*								
LC-.25	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
TOTAL	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
VARNISH																			
8 - 9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
7 - 7.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	7.5	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
6 - 6.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
5 - 5.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
4 - 4.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	4.5	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
3 - 3.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
2 - 2.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
1 - 1.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	1.5	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
> 0 - 0.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
TOTAL	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
Rating	*S12.12*		*S12.12*		*S12.12*		*S12.12*			*S12.12*		*S12.12*		*S12.12*		*S123.12*		*S1.123*	

TGC %	UNWEIGHTED DEP.	T.L. CARBON	T.L. FLAKED CARBON %
S12.12	*S12.123*	*S12.12*	*S123.12*

M11 EGR LUBRICANT PERFORMANCE TEST
FORM 12
PISTON 2 DEPOSIT RATINGS

Laboratory *CC*	EOT Date *YYYYMMDD*	EOT Time *HH:MM*
TEST NUMBER		
STAND: *CCCCC*	ENGINE: *CCCCCCCC*	ENGINE RUN NO.: *CCCC*
FORMULATION/STAND CODE: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
OILCODE: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

	GROOVES				LANDS					GROOVES		LANDS				OIL COOLING GALLERY (2)		UNDER CROWN (1)	
DEP. FACTOR	NO. 1		NO. 2		NO. 1		NO. 2		DEP FACTOR	NO. 3		NO. 3		NO. 4					
	A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.		A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.
CARBON																			
HC-1.0	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*				
MC-0.5	*S12*	*S12.12*								*S12*	*S12.12*								
LC-.25	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
TOTAL	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
VARNISH																			
8 – 9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
7 – 7.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	7.5	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
6 – 6.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
5 – 5.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
4 – 4.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	4.5	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
3 – 3.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
2 – 2.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
1 – 1.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	1.5	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
>0 – 0.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
TOTAL	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
Rating	*S12.12*		*S12.12*		*S12.12*		*S12.12*			*S12.12*		*S12.12*		*S12.12*		*S123.12*		*S1.123*	

TGC %	UNWEIGHTED DEP.	T.L. CARBON	T.L. FLAKED CARBON %
S12.12	*S12.123*	*S12.12*	*S123.12*

M11 EGR LUBRICANT PERFORMANCE TEST
FORM 13
PISTON 3 DEPOSIT RATINGS

Laboratory *CC*	EOT Date *YYYYMMDD*	EOT Time *HH:MM*
TEST NUMBER		
STAND: *CCCCC*	ENGINE: *CCCCCCCC*	ENGINE RUN NO.: *CCCC*
FORMULATION/STAND CODE: *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
OILCODE: *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

	GROOVES				LANDS					GROOVES		LANDS				OIL COOLING GALLERY (2)		UNDER CROWN (1)	
DEP. FACTOR	NO. 1		NO. 2		NO. 1		NO. 2		DEP FACTOR	NO. 3		NO. 3		NO. 4					
	A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.		A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.
CARBON																			
HC-1.0	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*				
MC-0.5	*S12*	*S12.12*								*S12*	*S12.12*								
LC-.25	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
TOTAL	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
VARNISH																			
8 - 9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
7 - 7.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	7.5	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
6 - 6.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
5 - 5.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
4 - 4.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	4.5	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
3 - 3.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
2 - 2.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
1 - 1.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	1.5	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S123*	*S123.12*	*S12*	*S1.123*
>0 - 0.9	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*											
TOTAL	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*	*S12*	*S12.12*		*S12*	*S12.12*								
Rating	*S12.12*		*S12.12*		*S12.12*		*S12.12*			*S12.12*		*S12.12*		*S12.12*		*S123.12*		*S1.123*	
TGC %									UNWEIGHTED DEP.			T.L. CARBON				T.L. FLAKED CARBON %			
S12.12									*S12.123*			*S12.12*							

M11 EGR LUBRICANT PERFORMANCE TEST
FORM 14
PISTON 4 DEPOSIT RATINGS

Laborato *CC*	EOT *YYYYMMDD*	EOT *HH:MM*
TEST NUMBER		
STAND: *CCCCC*	ENGINE *CCCCCCCC*	ENGINE RUN *CCCC*
FORMULATION/STAND *CC-CCCCCCCCCC-C-C-CCCCCC-CC-CC-CCCCC*		
OILCODE *CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC*		

	GROOVES				LANDS					GROOVES		LANDS				OIL COOLING		UNDER CROWN (1)	
DEP.	NO. 1		NO. 2		NO. 1		NO. 2		DEP FACTOR	NO. 3		NO. 3		NO. 4					
FACTOR	A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.		A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.	A, %	DEM.
CARBON																			
HC-1.0																			
MC-0.5																			
LC-.25																			
TOTAL																			
VARNISH																			
8 - 9									7.5										
7 - 7.9																			
6 - 6.9																			
5 - 5.9									4.5										
4 - 4.9																			
3 - 3.9																			
2 - 2.9									1.5										
1 - 1.9																			
>0 -																			
TOTAL																			
Rating	*S12.12*		*S12.12*		*S12.12*		*S12.12*			*S12.12*		*S12.12*		*S12.12*		*S123.12*		*S1.123*	
TGC %									UNWEIGHTED DEP.			T.L. CARBON				T.L. FLAKED CARBON			
S12.12									*S12.123*			*S12.12*							